

Please type a plus sign (+) inside this box → [+]



PTO/SB08A/B (04-03)

Approved for use through 04/30/2003. OMB 0651-0031

Patent and Trademark Office; U. S. DEPARTMENT OF COMMERCE

Under the Paperwork Reduction Act of 1995, no person is required to respond to a collection of information unless it contains a valid OMB control number.

Substitute for form 1449A/PTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

SHEET 1 of 2

COMPLETE IF KNOWN

Application Number	09/574,456
Confirmation Number	7765
Filing Date	May 19, 2000
First Named Inventor	M.E. Tremblay
Group Art Unit	1724
Examiner Name	Ivars C. Cintins
Attorney Docket Number	7568M

U. S. PATENT DOCUMENTS

EXAMINER INITIALS*	Cite No. ¹	DOCUMENT NUMBER		Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	
		Number - Kind Code ² (if known)				Class	Subclass
L.C.	1	US- 5,187,237		02/16/1993	Nordmann, et al	525	326.2
L.C.	2	US- 5,189,092		02/23/1993	Koslow	524	495
L.C.	3	US- 5,331,037		07/19/1994	Koslow	524	496
L.C.	4	US- 6,030,698		02/29/2000	Burchell, et al.	428	315.5
L.C.	5	US- 5,607,595		03/04/1997	Hiasa, et al.	210	669
L.C.	6	US- 5,310,593		05/10/1994	Tsujimoto, et al.	428	106
L.C.	7	US- 4,576,929		03/18/1986	Shimazaki	502	417
L.C.	8	US- 4,828,698		05/09/1989	Jewell, et al.	210	266
L.C.	9	US- 5,705,269		01/06/1998	Pimenov, et al.	428	375
L.C.	10	US- 5,762,797		06/09/1998	Patrick, et al.	210	497.1
L.C.	11	US- 5,227,238		07/13/1993	Hirai, et al.	428	367
L.C.	12	US- 5,744,236		04/28/1998	Rohrbach, et al.	428	372
L.C.	13	US- 6,155,432		12/05/2000	Wilson, et al.	210	505
L.C.	14	US- 5,989,736		11/23/1999	Lintz, et al.	428	688
L.C.	15	US- 4,696,742		09/29/1987	Shimazaki	210	287
L.C.	16	US- 5,834,114		11/10/1998	Economy, et al.	428	368
L.C.	17	US- 5,795,843		08/18/1998	Endo	502	416
L.C.	18	US- 5,776,385		07/07/1998	Gadkaree, et al.	264	295
L.C.	19	US- 5,773,143		06/30/1998	Vermilion, et al.	428	368
L.C.	20	US- 5,750,026		05/12/1998	Gadkaree, et al.	210	502.1
L.C.	21	US- 5,658,372		08/19/1997	Gadkaree	95	116
L.C.	22	US- 5,446,005		08/29/1995	Endo	502	433
L.C.	23	US- 5,308,703		05/03/1994	Tsujimoto, et al.	428	408
L.C.	24	US- 5,091,164		02/25/1992	Takabatake	423	445
L.C.	25	US- 5,143,889		09/01/1992	Takahiro, et al.	502	427
L.C.	26	US- 4,831,011		05/16/1989	Oikawa, et al.	502	406
L.C.	27	US- 4,734,394		03/29/1988	Kosaka, et al.	502	434
L.C.	28	US- 4,434,206		02/28/1984	Fukuda, et al.	428	288
L.C.	29	US- 4,205,055		05/27/1980	Maire, et al.	423	445
L.C.	30	US- 3,836,458		09/17/1974	Walls, et al.	210	638
L.C.	31	US- 3,888,958		06/10/1975	Juntgen, et al.	264	29
L.C.	32	US- 3,814,642		06/04/1974	Araki, et al.	156	60
L.C.	33	US- 3,558,276		01/26/1971	Otani	423	445R
L.C.	34	US- 3,419,645		12/31/1968	Pietzka, et al.	264	29
L.C.	35	US- 3,283,040		11/01/1966	Stover	264	29
L.C.	36	US- 5,024,764		06/18/1991	Holler	210	484
L.C.	37	US- 4,772,508		09/20/1988	Brassell	428	218
L.C.	38	US- 4,772,455		09/20/1988	Izumi, et al	423	210
L.C.	39	US- 4,573,464		03/04/1986	Yo	128	206.15
L.C.	40	US- 3,972,818		08/03/1976	Bokros	210	435

FOREIGN PATENT DOCUMENTS

EXAMINER INITIALS*	Cite No. ¹	FOREIGN PATENT DOCUMENT			Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear	T ³
		Country Code ³	Number ⁴	Kind Code ⁵ (if known)				
L.C.	41	EP	0 792 676	A1	09/03/1997	Koslow, et al.	—	—
L.C.	42	EP	0 366 539	A2	05/02/1990	Kaneko, et al.	—	—

L.C.	43	DE	3,020,615	A1	12/11/1980	Beauman, et al.	
L.C.	44	JP	304,095		12/07/1989	Oidara, et al.	
L.C.	45	JP	04-247,233		09/03/1992	Maeda, et al.	
L.C.	46	JP	05-253,478		10/05/1993	Tsujimoto, et al.	
L.C.	47	JP	07-080,449		03/28/1995	Maebashi, et al.	
L.C.	48	JP	08-099,080		04/16/1996	Matsumoto, et al.	
L.C.	49	JP	10-052,616		02/24/1998	Nagahama, et al.	
L.C.	50	JP	10-139,645		05/26/1998	Murakami	
L.C.	51	JP	58-131,187		08/04/1983	Tanaka	
L.C.	52	EP	0 364 111	A1	04/18/1990	Muramatsu, et al.	
L.C.	53	EP	0 439 005	A1	07/31/1991	Iizuka	
L.C.	54	EP	0 551 864	A1	07/21/1993	Fujisawa, et al.	
L.C.	55	UK	2 311 775	A	10/08/1997	Suh	
L.C.	56	WO	95/06507		03/09/1995	Mitschke	
L.C.	57	UK	2 051 770	A	01/21/1981	Beauman, et al.	

NON PATENT LITERATURE DOCUMENTS

EXAMINER INITIALS*	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published	T ²
L.C.	58	C.P. GERBA, "Applied and Theoretical Aspects of Virus Adsorption to Surfaces", <u>Advances in Applied Microbiology</u> , Vol. 30, pp. 133 - 168 (1964).	
L.C.	59	R.V. JASRA, et al., "Separation of Gases by Pressure Swing Adsorption", <u>Separation Science and Technology</u> , Vol. 26, No. 7, pp. 885-930 (1991).	
L.C.	60	K. KANEKO, et al., "Microporosity and Adsorption Characteristics Against NO, SO ₂ , and NH ₃ , of Pitch-Based Activated Carbon Fibers", <u>Carbon</u> , Vol. 26, No. 3, pp. 327 - 332 (1988).	
L.C.	61	T.D. BURCHELL, et al., "The Effect of Neutron Irradiation on the Structure and Properties of Carbon-Carbon Composite Materials", <u>Effects of Radiation on Materials: 16th International Symposium, ASTM STP 1175</u> , American Society for Testing and Materials, Philadelphia, 1993.	
L.C.	62	G.C. WEI, et al., "Carbon-Bonded Carbon Fiber Insulation for Radioisotope Space Power Systems", <u>Ceramic Bulletin</u> , Vol. 64, No. 5, pp. 691 - 699 (1985).	
L.C.	63	M.W. LeCHEVALLIER, et al., "Disinfection of Bacteria Attached to Granular Activated Carbon", <u>Applied and Environmental Microbiology</u> , Vol. 48, No. 5, pp. 918 - 923 (1984).	
L.C.	64	A. SAKODA, et al., "Adsorption of Viruses in Water Environment onto Solid Surfaces", <u>Wat. Sci. Tech.</u> , Vol. 35, No. 7, pp. 107 - 114 (1997).	
L.C.	65	G.M. KIMBER, et al., "Fabrication of Carbon Fibre Composites for Gas Separation", <u>Gas. Sep. Purif.</u> , Vol. 10, No. 2, pp. 131 - 136 (1996).	
L.C.	66	S.K. RYU, "Porosity of Activated Carbon Fibre", <u>High Temperatures - High Pressures</u> , Vol. 22, pp. 345 - 354 (1990).	
L.C.	67	F. DERBYSHIRE, et al., "Carbon Fiber Composite Molecular Sieves for Gas Separation", <u>Eighth CIMTEC</u> , Florence, Italy, June 28 - July 2, 1994.	
L.C.	68	M. JAGTOYEN, et al., "Novel Activated Carbon Materials For Water Treatment", <u>The European Carbon Conference "Carbon 96"</u> , Newcastle, UK July 1996.	
L.C.	69	I. BAUTISTA - TOLEDO, et al., "Activated Carbons as Adsorbents of Bacteria", <u>Conference Proceedings for Eurocarbon '98</u> , Strasbourg, France July 5 - 9, 1998.	
L.C.	70	N. OPENKO, et al., "Application of Carbon Materials in Water Purification", <u>Conference Proceedings for Eurocarbon '98</u> , Strasbourg, France July 5 - 9, 1998.	
L.C.	71	T.M. POWELL, et al., "Adsorption of a Model Bacteriophage by Activated Carbon", <u>University of Kentucky, Dept. of Civil Engineering and Center for Applied Energy Research</u> , pp. 685 - 690	
L.C.	72	T. POWELL, et al., "Investigating the Effect of Carbon Shape on Virus Adsorption", <u>Environmental Science and Technology</u> , Vol. 34, No. 11, pp. 2779 - 2783 (2000).	
L.C.	73	UNITED STATES ENVIRONMENTAL PROTECTION AGENCY, OFFICE OF RESEARCH AND DEVELOPMENT, "Stormwater Treatment at Critical Areas: Evaluation of Filtration Methods", EPA/600/R-00/010, pp.1 - 380, October 1999.	
EXAMINER <i>I. C. Intinis</i>		DATE CONSIDERED <i>July 27, 2003</i>	

EXAMINER: Initial if reference considered, whether or not citation is in conformance with M.P.E.P. 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See Kind Codes of U.S. Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

Burden Hour Statement: This form is estimated to take 2.0 hours to complete. Time will vary depending upon the needs of the individual case. Any comments on the amount of time you are required to complete this form should be sent to the Chief Information Officer, Patent and Trademark Office, Washington, D.C. 20231. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.